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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,727	04/26/2001	Evan Chicklis	D-4465	6318

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EXAMINER

MONBLEAU, DAVIENNE N

ART UNIT PAPER NUMBER

2828

DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/841,727

Applicant(s)

CHICKLIS ET AL

Examiner

Davienne Monbleau

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

*Paul IP*  
PAUL IP  
SUPERVISORY PATENT EXAMINER  
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## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

Examiner believes that some of the Figures should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated, but is not exactly sure which Figures this pertains too. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: gain medium, resonant cavity, reflectors/mirrors, Q-switch, lenses, and an optical fiber.

Regarding Claims 1 and 7, the phrase "being in band to  $I^2$  devices" is unclear. Furthermore, it is not clear from the specification what this means or what the structure of an  $I^2$  device comprises.

Further regarding Claims 7 and 10, there is no structural support for the function of permitting the attainment of gain coefficients.

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Regarding Claims 13 and 14, it is not clear as to what is considered to be "high gain".

Regarding Claim 19, it is not clear as to what is considered to be an "image intensifier device."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 7-9, 11, and 13-17, to the extent taught and understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Stultz et al. (U.S. Patent No. 6,246,711). Regarding Claims 1 and 7, Stultz et al. disclose in column 2 lines 14-16 a resonant pumped erbium laser, pumped by diodes. Stultz et al. Further disclose in column 3 lines 45-50 an  $I^2$  transition. Each gain material inherently has a storage lifetime.

Regarding Claim 13, Stultz et al. disclose in column 2 lines 15-42 an erbium laser with a plurality of diodes.

Regarding 14, Stultz et al. disclose in column 2 lines 14-16 a resonant pumped erbium laser. Each gain material inherently has a storage lifetime.

Regarding Claim 18, Stultz et al. disclose in column 2 lines 14-63 a resonant pumped erbium laser comprising an erbium concentration of less than 2.0%.

Regarding Claims 2, 8, and 15, Stultz et al. disclose in column 2 lines 58-63 an erbium 0.5%. The lifetime is a characteristic of the material.

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Regarding Claims 3, 9, and 16, Stultz et al. disclose in column 2 lines 14-16 a diode pumped Yb-Er glass laser.

Regarding Claims 5, 11, 17, and 23, Stultz et al. disclose in column 5 lines 50-53 that said wavelength is 1.5 microns.

Regarding Claim 19, Stultz et al. disclose in column 3 lines 45-50 an  $I^2$  transition.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 6, 10, 12, 21, and 22, to the extent taught and understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Stultz et al. (U.S. Patent No. 6,246,711). Regarding Claims 4, 10, and 21 having a laser with specific output energy is dependent upon the gain material and the pumping energy. Thus, one of ordinary skill in the art would be able to

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determine the specific requirements to produce a beam with output energy between 250 and 300 mJ.

Regarding Claims 6, 12, and 22, Stultz et al. teach in column 4 lines 1-2 a diode operating at 25 W, which is approximately 30W.

Regarding Claim 20, both lasers are well known in the art. Furthermore, it is known that a pump source for a laser is chosen to produce the desired output wavelength and power.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: 6,529,675; 6,404,785; 5,557,624; 5,181,211; Kubo et al. ("Diode-pumped Lasers..."); and Lees et al. ("980nm diode pumped...").

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 703-306-5803. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on 703-308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

*Davienne Monbleau*  
DNM  
April 7, 2003

*Paul Ip*  
PAUL IP  
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